



# MI FluFocus

## Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology  
Bureau of Laboratories



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### ***New updates in this issue:***

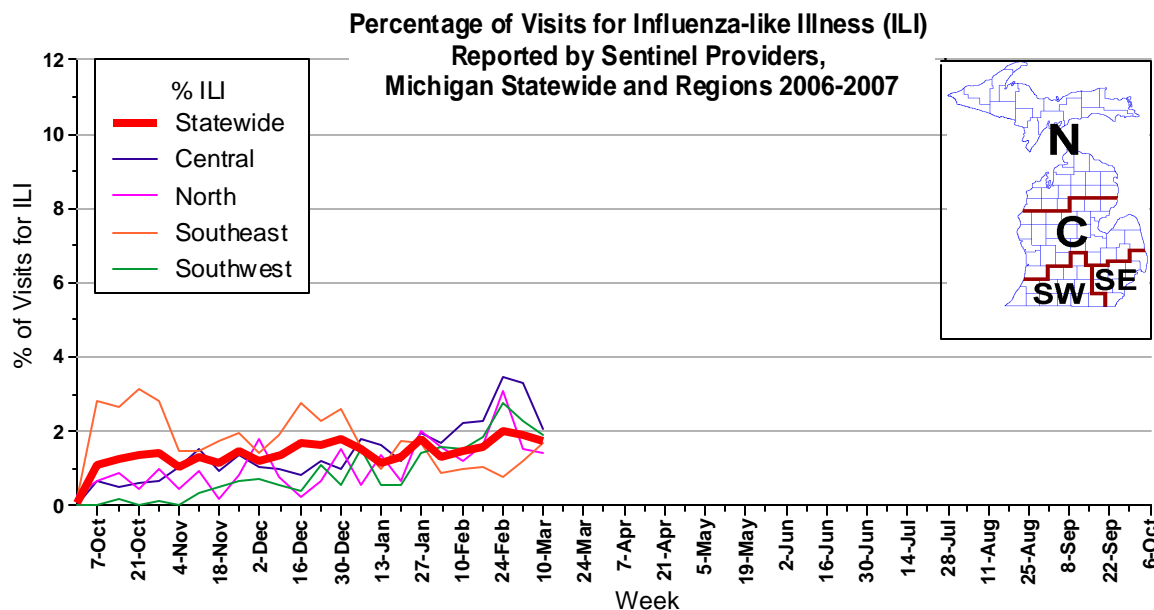
- **Michigan Surveillance:** Influenza indicators remain steady at an elevated level in Michigan
- **National Surveillance:** Declines in activity are being seen at the national level
- **Avian Influenza:** New human case reported in Egypt; poultry outbreaks in Afghanistan and Vietnam

**Michigan Disease Surveillance System:** The last week saw a notable increase in individual influenza reports to the local health departments and a decrease in aggregate flu-like illness reports. Reporting levels are slightly lower than this time last year; however, slight fluctuations at this increased level of activity are not unexpected.

**Emergency Department Surveillance:** Emergency department visits due to both constitutional and respiratory complaints remained steady this past week. The levels reported are consistent with levels reported this time last year. Two constitutional alerts in Regions 5(1) and 6(1) and no respiratory alerts were generated last week.

**Over-the-Counter Product Surveillance:** OTC product sales reflected the steady activity observed last week. Most sales were steady or saw a slight decrease, except thermometers, which saw a very slight increase. The indicators levels are comparable to those seen at this time last year, except for the adult and pediatric cold relief liquid, which seem to be holding about 1-2% below its percentage of total sales for this time last year.

**Sentinel Surveillance (as of March 15, 2007):** During the week ending March 10, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained relatively unchanged overall at 1.8% of all visits, representing 104 cases of ILI out of 5,897 total patient visits; twenty-five sentinels provided data for this report. Activity decreased in both the Central and Southwest surveillance regions to 2.0% and 1.9%, respectively, while low levels of activity were reported again this week in the North, which remained at 1.4%. In contrast, the Southeast region reported an increasing percentage of visits due to ILI for the second consecutive week, currently 1.7%. Note that these rates may change as additional reports are received.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or [potterr1@michigan.gov](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of March 15):** For the 2006-2007 influenza season, there have been 121 culture-confirmed cases from the MDCH Lab:

- 64 A:H1N1 (Southwest (20), Southeast (20), Central (14), North (10))
- 4 A H1-like (2C, 1SW, 1SE)
- 14 A:H3N2 (North (7), Southwest (3), Southeast (2), Central (2))
- 2 A H3-like (Southeast (1), North (1))
- 2 A subtype pending (North (1), Southeast (1))
- 35 B (Central (12), Southeast (11), Southwest (7), North (5))

All influenza B cultures at the MDCH Lab have been B/Malaysia, except for one B/Shanghai from the Southeast region. Sentinel laboratories throughout the state are reporting steady or increasing Influenza A positives. The most notable increases are in the Southwest area of the state. Labs in the Southwest and Southeast are also reporting increases in Influenza B positives. Reports of respiratory syncytial virus are moderate in most areas with recent increases observed in the Southeast and Central regions. Low levels of parainfluenza and adenovirus continue to be reported in all areas.

\*\*\*As a reminder, the positive predictive value of influenza rapid tests decreases during times of low influenza prevalence. MDCH suggests that during periods of low influenza activity in your community, all positive rapid tests results be confirmed by sending in a specimen for viral culture; this can be arranged through your local health department.

**Influenza-Associated Pediatric Mortality (as of March 15):** For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan. MDCH is currently investigating a possible pediatric death due to influenza from the Southeast region.

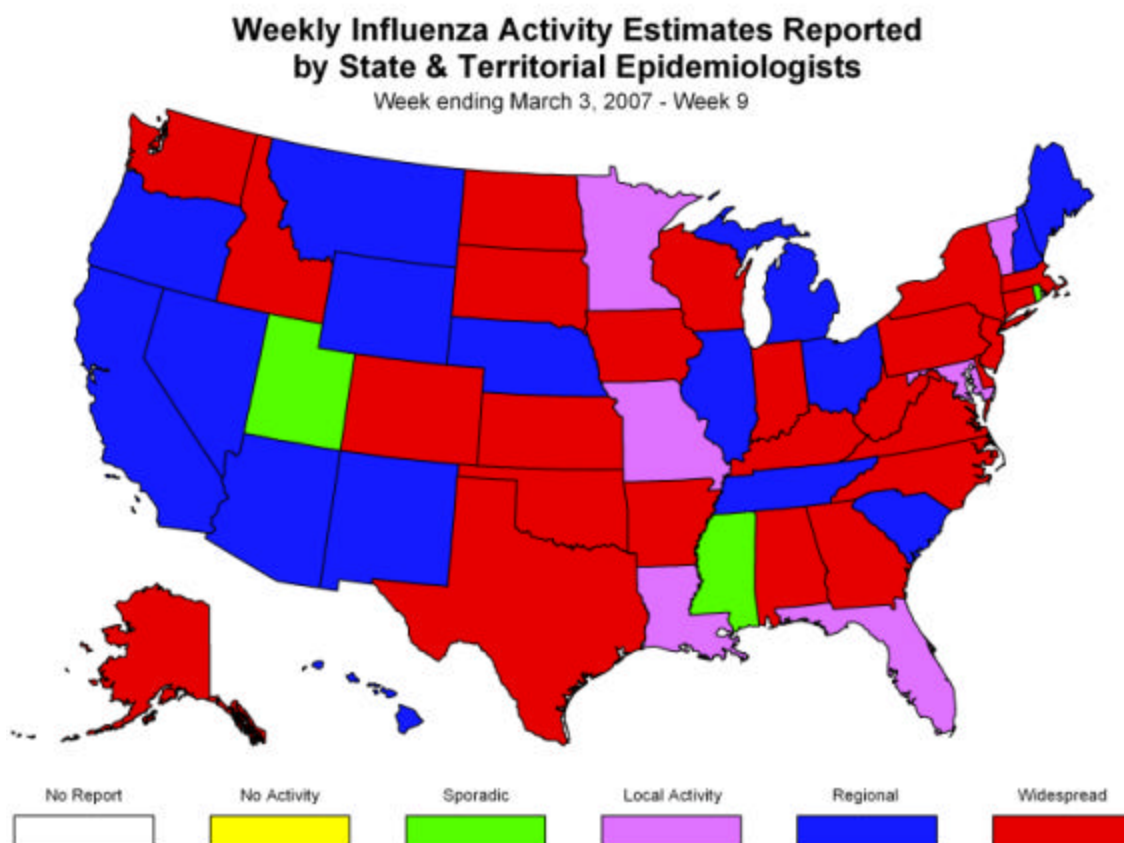
\*\*\*Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to [http://www.michigan.gov/documents/fluletter\\_107562\\_7.pdf](http://www.michigan.gov/documents/fluletter_107562_7.pdf) for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

**Congregate Settings Outbreaks (as of March 15):** There has been one report of an influenza outbreak to MDCH for the 2006-2007 influenza season.

**National (CDC, March 15):** During week 9 (February 25 – March 3, 2007), influenza activity decreased slightly in the United States. Data from the U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories indicated a decline in activity for the third consecutive week. During week 9, WHO and NREVSS laboratories reported 4,445 specimens tested for influenza viruses, 1,002 (22.5%) of which were positive: 95 influenza A (H1) viruses, 24 influenza A (H3) viruses, 618 influenza A viruses that were not subtyped, and 265 influenza B viruses. ILI data was above baseline for the eleventh week this season but is declining. Twenty-five states reported widespread influenza activity; 16 states and New York City reported regional influenza activity; six states and the District of Columbia reported local influenza activity; and three states reported sporadic influenza activity. The reporting of widespread or regional influenza activity decreased from 44 states for week 8 to 41 states for week 9. The percent of deaths due to pneumonia and influenza remained below baseline level.

To access the CDC weekly surveillance report throughout the influenza season, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>.

February 11 – March 3, 2007 (specimens testing positive)	
Michigan is in the East North Central Region	
>20% positive	10-20% positive
East North Central (31.2%)	New England (15.1%)
West North Central (28.0%)	Mid Atlantic (17.3%)
East South Central (36.2%)	South Atlantic (17.4%)
West South Central (33.1%)	Pacific (17.3%)
Mountain (21.0%)	



**International (WHO, as of February 28):** Overall influenza activity in the northern hemisphere increased during weeks 1–7 but remained moderate in general. Influenza A(H3N2) viruses predominated in many European countries and in some Asian countries/areas, where this season’s activity started to increase in early January 2007. Influenza A(H1N1) viruses circulated in the United States and in a few eastern European countries. Influenza B viruses circulated at low levels.

For influenza activity from individual countries, please visit the full WHO article “Seasonal Influenza Activity in the World, 2007” at <http://www.who.int/csr/disease/influenza/update/en/>.

For a summary of worldwide influenza activity from September 2006 to January 2007, please see the WHO article "Influenza in the World" in the March 9, 2007 edition of the *Weekly Epidemiological Record*, available at <http://www.who.int/wer/2007/wer8210.pdf>.

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MDCH reported **REGIONAL ACTIVITY** to the CDC for this past week ending March 10, 2007.

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## End of Seasonal Report

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### Avian Influenza Activity

**WHO Pandemic Phase:** Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

**International, Human (WHO, March 12):** The Egyptian Ministry of Health and Population has announced a new human case of avian influenza A(H5N1) virus infection. The case was confirmed by the Egyptian Central Public Health Laboratory and by the US Naval Medical Research Unit No.3 (NAMRU-3). The 4-year-old boy was from Ad Daqahliyah Governorate. He developed symptoms on March 7, 2007, was admitted to hospital on March 8 and his condition remains stable. The boy was exposed to sick birds during the first three days of March. Contacts of the boy remain healthy and are being closely monitored. Of the 24 cases confirmed to date in Egypt, 13 have been fatal.

**International, Poultry (Associated Press, March 8):** The virulent H5N1 bird flu virus has been confirmed in six additional areas in eastern Afghanistan and the country's capital, the United Nations said Thursday. The U.N. Food and Agriculture Organization said samples collected from home-raised poultry tested positive in an FAO-supported laboratory. It confirmed H5N1 outbreaks on Wednesday in the Khogiani, Rodat and Bati Kot districts of Nangarhar province, Khas Kunar and Kuz Kunar in Kunar province, and in the Shah Shahid area of Kabul.

The government immediately began disinfecting and quarantining affected areas and slaughtering nearby poultry, FAO said in a statement, without providing further details. FAO had confirmed outbreaks of H5N1 in the eastern city of Jalalabad on Feb. 20, and in the Sawki district of Kunar on Feb. 24. Afghanistan reported its first cases of H5N1 in March and April last year in Kabul and in the provinces of Kapisa, Logar and Nangarhar. There have been no reported infections of humans.

**International, Poultry (Agence France-Presse, March 9):** Vietnamese health workers Friday [March 9 2007] moved to contain a bird flu outbreak in the capital Hanoi as the H5N1 virus spread to a 5th location within 3 weeks, in the country's southern Mekong Delta. Donning protective suits and face masks, workers in Hanoi sprayed disinfectant at several poultry farms on the northern outskirts of the city where 2000 chickens died of the virus or were destroyed earlier this week.

Police and officials manned 24-hour checkpoints, set up since Monday, leading into the Hau Duong hamlet in suburban Dong Anh district to quarantine the site of the outbreak, where another 2000 birds have since been vaccinated. "No poultry and poultry products are allowed to be transported in or out of the area," local veterinarian Do Van Thanh told AFP. "Local residents must wear masks if they come out of their houses." Health officials warn of a heightened risk as the killer virus, like other respiratory diseases, spreads faster in the cold winter months, aided by the fact that people tend to spend more time together in confined spaces.

The 5th location in Vietnam since late February [2007 was a] flock of 2-month-old ducks in Can Tho, a city 170 km (100 miles) southwest of Ho Chi Minh City. About 100 of the unvaccinated ducks died of the H5N1 strain Wednesday [March 7 2007] and 400 more birds were destroyed, said the national animal health department, part of the agriculture ministry.

The virus has also been reported in the northern provinces of Ha Tay and Hai Duong and in the southern Vinh Long province in recent weeks, following a spate of outbreaks in the south in December [2006] and January [2007].

**Michigan Wild Bird Surveillance (USDA, March 13):** According to the National HPAI Early Detection Data System website, available at <http://wildlifedisease.nbi.gov/ai/>, Michigan has results for a total of 1857 samples, from both wild birds and the environment, submitted for testing as of March 13<sup>th</sup>. 232 of these

were live-captured birds, 605 were hunter-killed, 174 were sentinel animals, 639 were dead birds that were submitted for testing, and 207 were environmental samples. HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 111,515 birds or environmental samples tested nationwide.

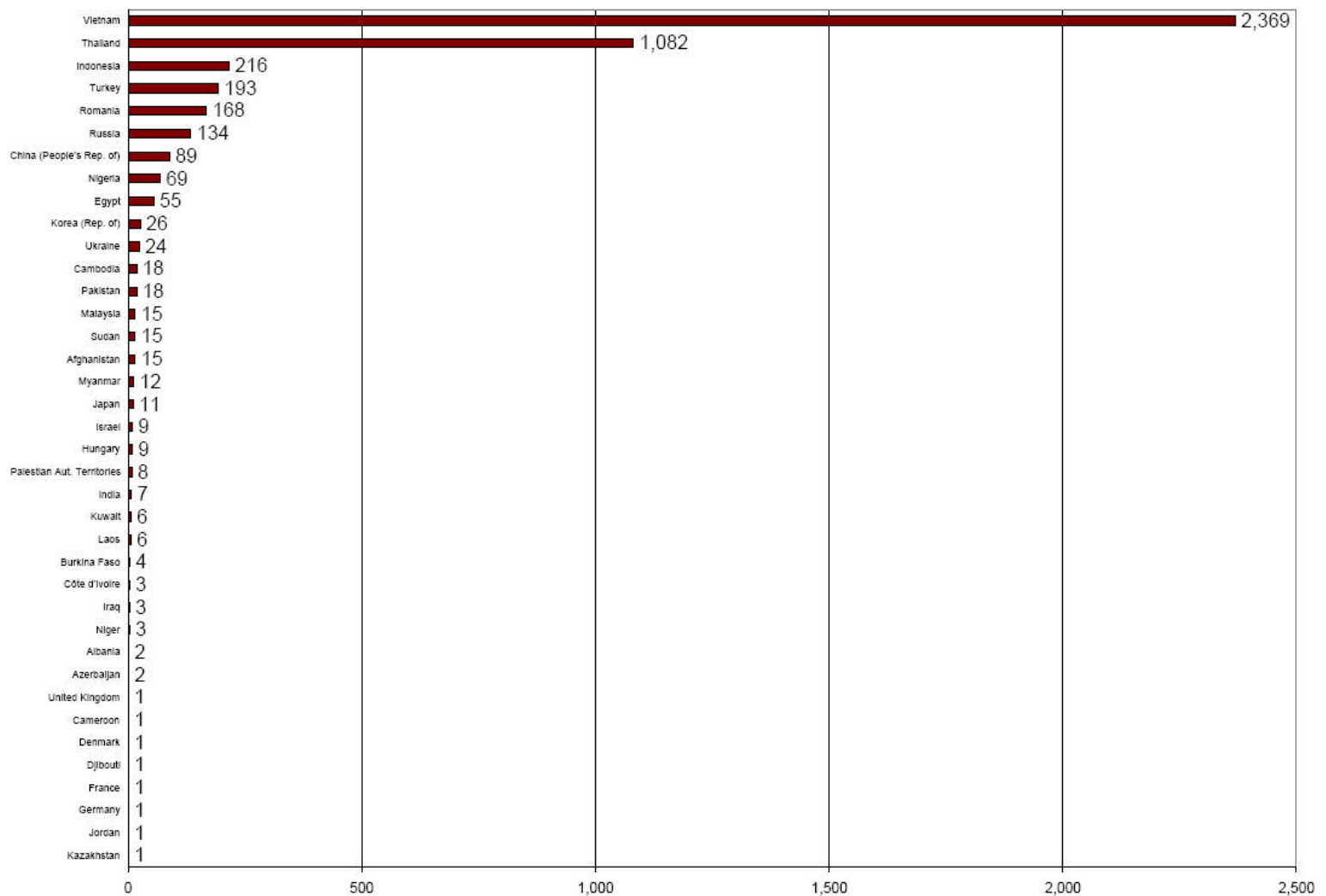
To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

**Please contact Susan Vagasky at [VagaskyS@Michigan.gov](mailto:VagaskyS@Michigan.gov) with any questions regarding this newsletter or to be added to the weekly electronic mailing list.**

**Contributors**

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**Table 1. H5N1 Influenza in Poultry (Outbreaks up to March 9, 2007)**(Source: [http://www.oie.int/downld/AVIAN%20INFLUENZA/A\\_AFAsia.htm](http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AFAsia.htm) Downloaded 3/13/2007)**Table 2. H5N1 Influenza in Humans (Cases up to March 12, 2007)**

(http://www.who.int/entity/csr/disease/avian\_influenza/country/cases\_table\_2007\_03\_12/en/index.html Downloaded 3/12/2007)

Cumulative number of lab-confirmed human cases reported to WHO. Total number of cases includes deaths.

Country	2003		2004		2005		2006		2007		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	0	0	6	6
China	1	1	0	0	8	5	13	8	1	0	23	14
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	5	3	24	13
Indonesia	0	0	0	0	19	12	56	46	6	5	81	63
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Lao PDR	0	0	0	0	0	0	0	0	1	1	1	1
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	0	0	93	42
Total	4	4	46	32	97	42	116	80	14	9	278	168